

Municipal Setting Designations



MSDs: Another tool for Houston

Jennifer Clancey
Program Manager

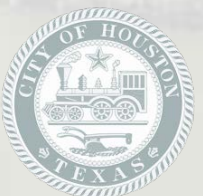


Municipal Setting Designations (MSDs)



Agenda

- City of Houston - Programmatic
 - What the MSD is
 - Who the MSD impacts
 - Steps in the MSD process
- MSD Applicant - Technical
 - Specific information on the sites 1300 and 1255 North Post Oak
 - **Questions / Comments**



Environmental Protection in Texas

- ❑ The State of Texas has jurisdiction for environmental protection
 - ❑ Texas Commission on Environmental Quality (TCEQ)

- ❑ Environmental Complaints



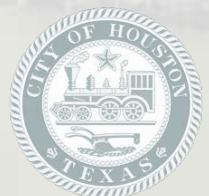
- ❑ By Phone: 1-888-777-3186
 - ❑ Online: <http://www5.tceq.texas.gov/oce/complaints/>




- ❑ By Phone: 311
 - ❑ Online: http://webintake.houstontx.gov/web_intake/Controller



Municipal Setting Designations (MSDs)



MSD Notice Letters

**CITY OF HOUSTON**
Public Works and Engineering Department

Annis D. Parker
Mayor
Michael S. Marcotte, P.E., D.WRE, SCEE
Director
P.O. Box 1962
Houston, Texas 77251-1962
www.houstontx.gov

February 3, 2010

RE: MSD Application #2009-022-FCE
1111 Lockwood Drive, Houston, TX 77020

Dear Recipient:

Enclosed is a public meeting notice about an upcoming meeting in your area. This is an informational meeting about a property at 1111 Lockwood Drive, Houston, TX 77020 that has contaminated groundwater. We welcome you to attend the public meeting, but it is not mandatory that you come.

The public meeting will be held at:
3/11/2010
6:00 PM
Ripley House
4410 Navigation, Houston, TX 77011

The following notice will give you additional details about the type of contamination that has been found at the site. Please note: the groundwater contamination at the site is very shallow and is not the groundwater that the City of Houston uses for some of its drinking water. Most of the City's drinking water is now from surface water (Lakes Houston, Conroe, and Livingston).

The purpose of this public meeting is to inform you, the nearby neighbors and well owners, about the Municipal Settings Designation (MSD) program and the application. During the meeting a representative from the city will talk about the MSD program and then the MSD applicant will talk about the site. You may come to the meeting just to listen or you can share a comment. Comments can be given in person at the meeting or you can send them to the State of Texas and/or to the City of Houston at the following addresses:

Mr. Scott Settemeyer
Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC-225
Austin, Texas 78711.

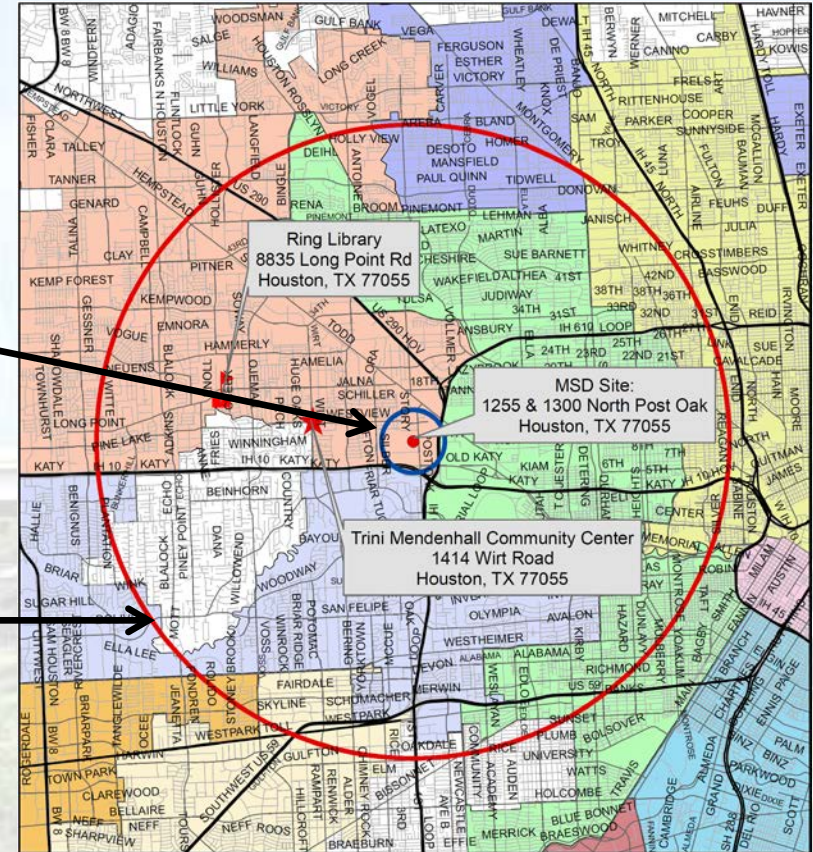
Richard Chapin
Public Works and Engineering Department
City of Houston
611 Walker, 19th Fl.
Houston, Texas 77002
msd@cityofhouston.net
(713) 837-0928

A MSD is the way the city can legally say that the contaminated groundwater at a property cannot be used for drinking water now or in the future, thereby protecting public health. It may also help a contaminated site develop or redevelop because the state's requirements to clean up contaminated groundwater may be set at levels based on this restriction. The MSD does not excuse the applicant from clean up activities such as removing the surface soil or reducing other risks to the public.

Council Members: Brenda Stanley, Janis Johnson, Anne Claitor, Wendy Adams, Mike Sullivan, Al Huang, Oliver Pennington, Edward Gonzalez, James G. Rodriguez, Stephen C. Castello, Sue Loeffel, Melissa Hargis, C.C. "Red" Stephens, Joshua "J" Jones, Contreras, Robert C. Green

Property Owners
First-Class Mail
½-Mile Radius
City Requirement

Water Well Owners
Certified Mail
5-Mile Radius
State Requirement



If you received a notice through certified mail that means you have a water well according to the State's records



Municipal Setting Designations (MSDs)

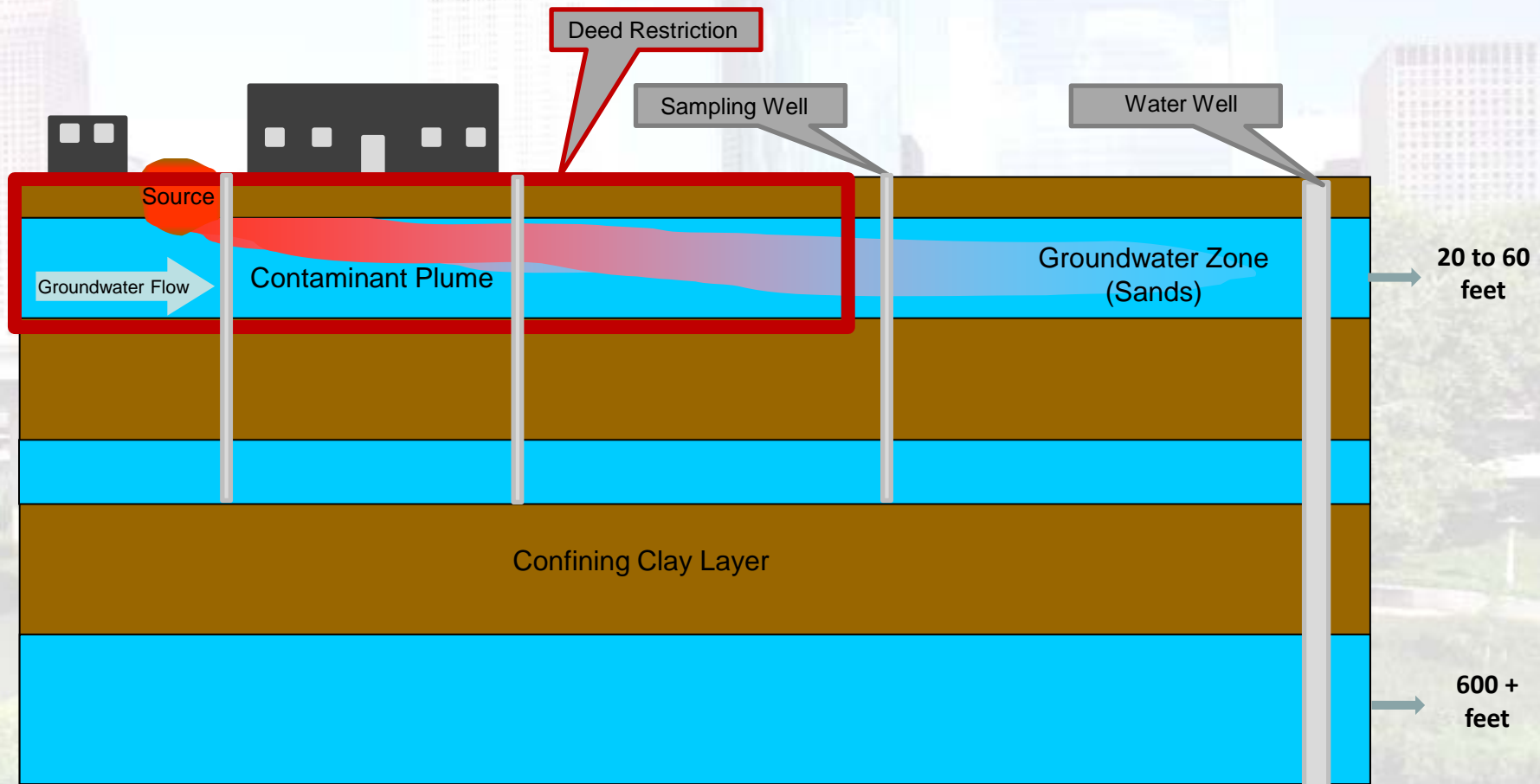


What an MSD is

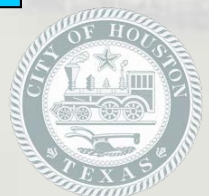
- **Voluntary** deed restriction to prevent the use of contaminated groundwater
 - No water wells on the subject property for drinking water purposes
 - A legally binding way to ensure the public is not exposed to contaminants



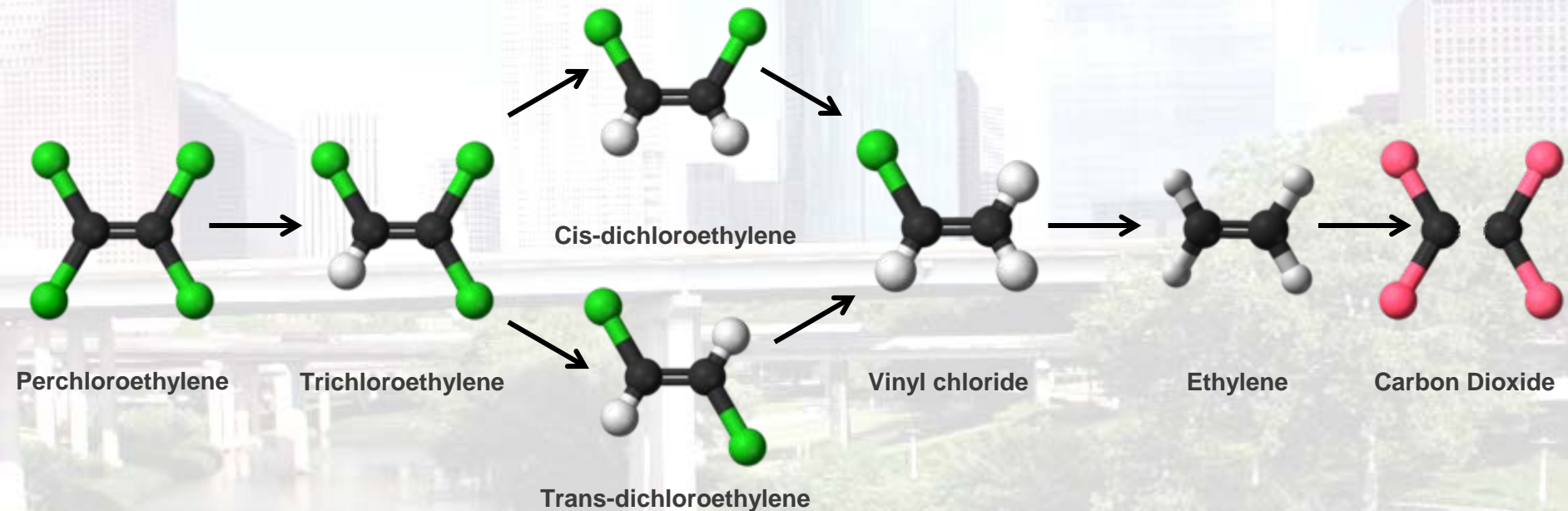
Groundwater Contamination



Please Note: Houston has shallow contaminated groundwater scattered across the City



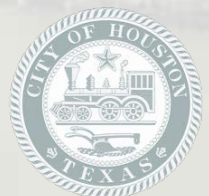
Chemical Degradation



This process takes decades, but is found to be the most efficient strategy.

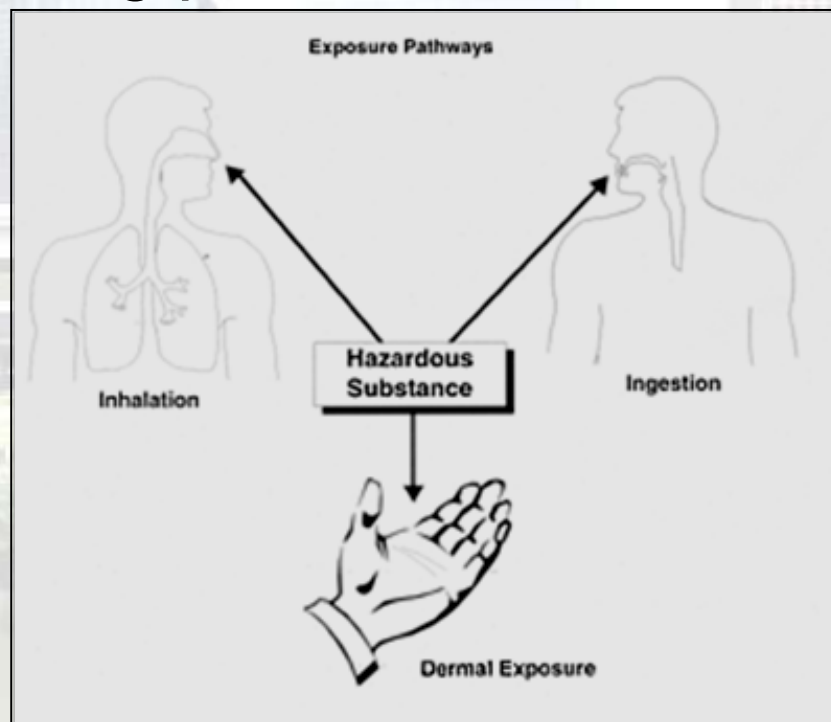


Municipal Setting Designations (MSDs)



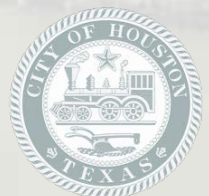
Exposure Pathways

- Cleanup Programs are based on public exposure to contaminants and reducing public health risks
- Exposure Pathways
 - ~~Ingestion~~
 - Inhalation
 - Contact (dermal)
 - Soil
 - Groundwater to surface water
 - Ecological



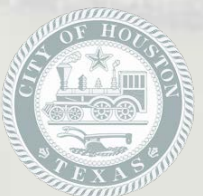
Environmental Cleanup

- The MSD is only **one step** in the cleanup process
- An MSD does **NOT** excuse the applicant from reducing risks to the public
- Responsible Parties are always responsible



Who the MSD Impacts

- An MSD does not affect you!
 - An MSD **DOES NOT AFFECT** your property
 - An MSD **DOES NOT AFFECT** your water well
 - There are **NO REQUIREMENTS** on you
- Drinking water supplied by the City is not affected

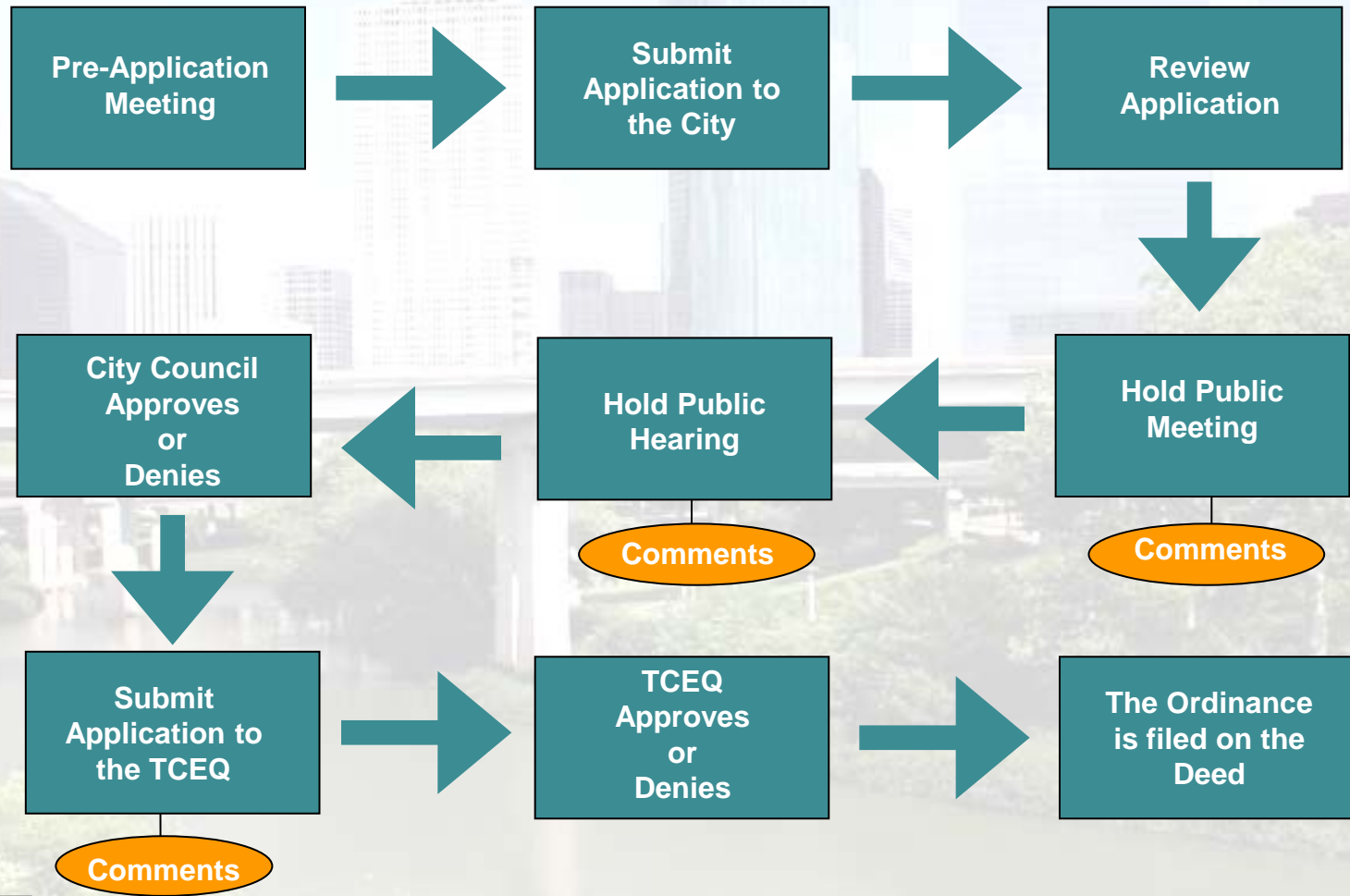


City's Requirements of the Applicant

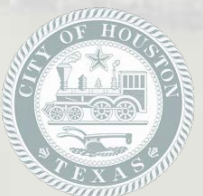
- Enrollment in a State or Federal cleanup program
- Thorough investigation confirming that the groundwater plume is stable or decreasing, and delineated
- Source of contamination has been removed
- A **third party** Engineer (P.E.) or Geologist (P.G.) must certify application



Steps in the Process

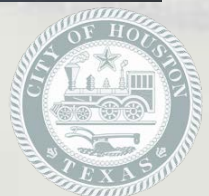


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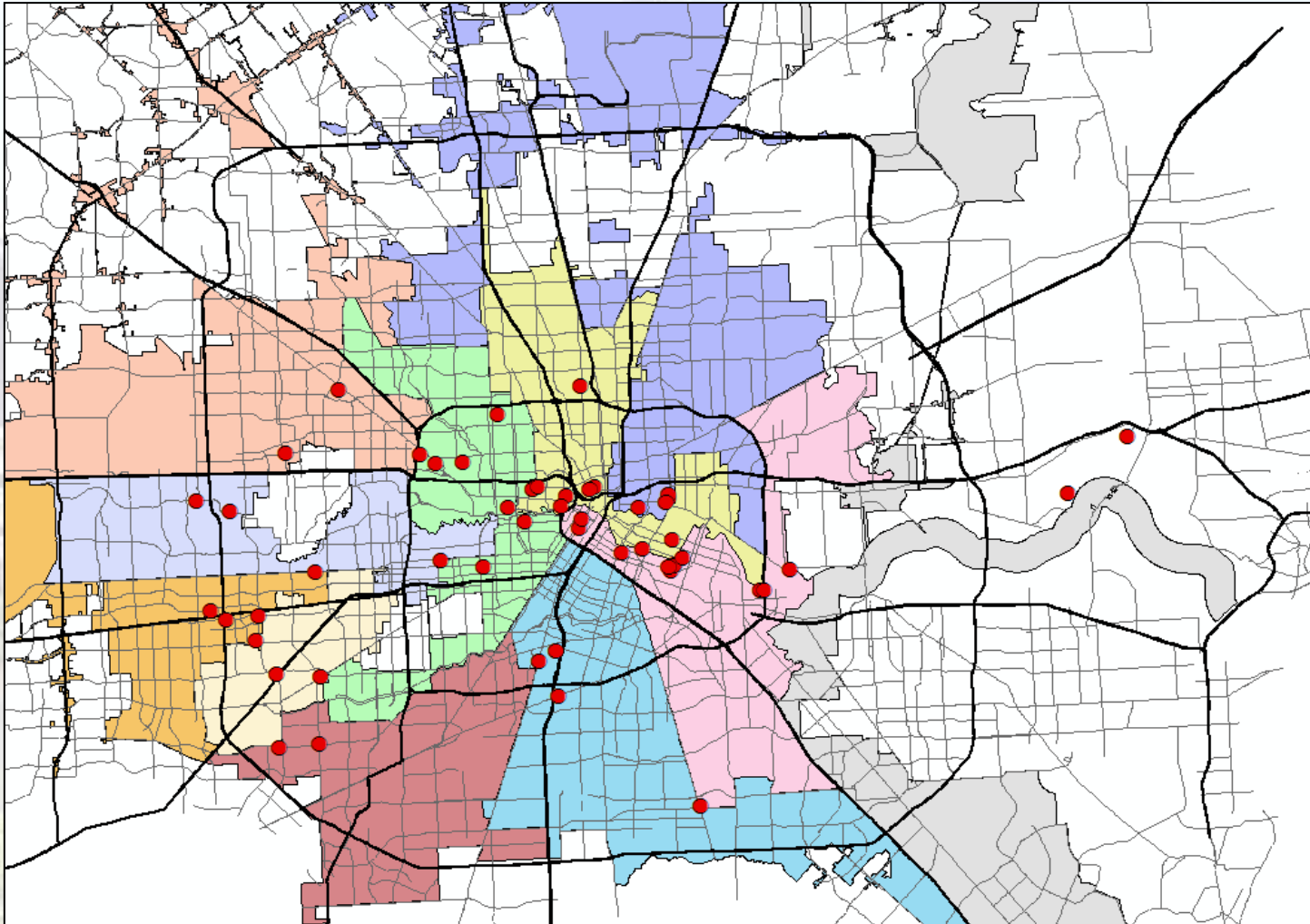


Why Support An MSD?

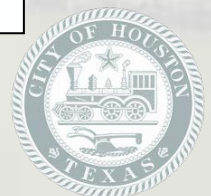
- Protects the public from consumption of contaminated groundwater
- Encourages clean-up of contaminated sites
- Promotes redevelopment of under-utilized properties



MSD Sites in Houston

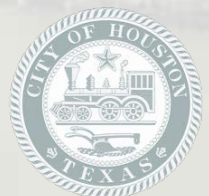


Municipal Setting Designations (MSDs)



MSD Application Availability

- Ring Library
 - 8835 Long Point Road
 - Reference Desk
- Also available online at:
www.houstonmsd.org
 - MSD in Review Page



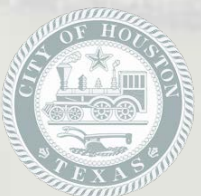
Public Hearing

- Date: November 6, 2014
- Time: 10:00 AM
- Place: City Council Chamber (Committee Meeting)
Transportation, Technology, & Infrastructure
- Address: 901 Bagby, Second Floor
Houston, Texas 77002

Any person wishing to speak on this issue must arrive at least 15 min early and sign the speakers list located on the front desk.



Municipal Setting Designations (MSDs)



Contact Information

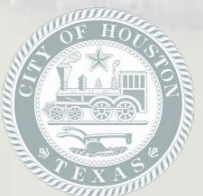
Jennifer Clancey
Program Manager

Public Works & Engineering
City of Houston,
1002 Washington, 3rd Floor
Houston, Texas 77002

msd@houstontx.gov
(832) 394-9005



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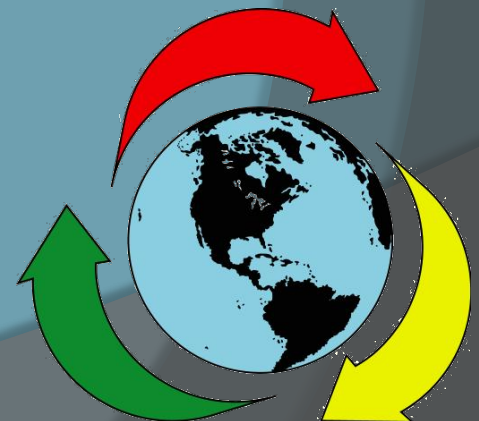


FORMER MCKINLEY PAPER & FORMER KVAERNER OILFIELD SERVICES

1300 AND 1255 NORTH POST OAK
MSD #2014-073-KOS

Presented By:

Michael F. Marcon, P.G.
InControl Technologies, Inc.
3845 Cypress Creek Parkway
Suite 195
Houston, Texas 77068
(281) 580-8892





Location of Proposed MSD Boundary

1300 North Post Oak History

- Developed in early 1950's as a manufacturing facility in the paper industry.
- Facility conducted printing and cardboard manufacturing.
- Operated in the paper related industry until mid-2000's - most recently by McKinley Paper Company.



1300 North Post Oak - Current

- Property structures were demolished in 2012.
- Property is currently being redeveloped with multi-family housing



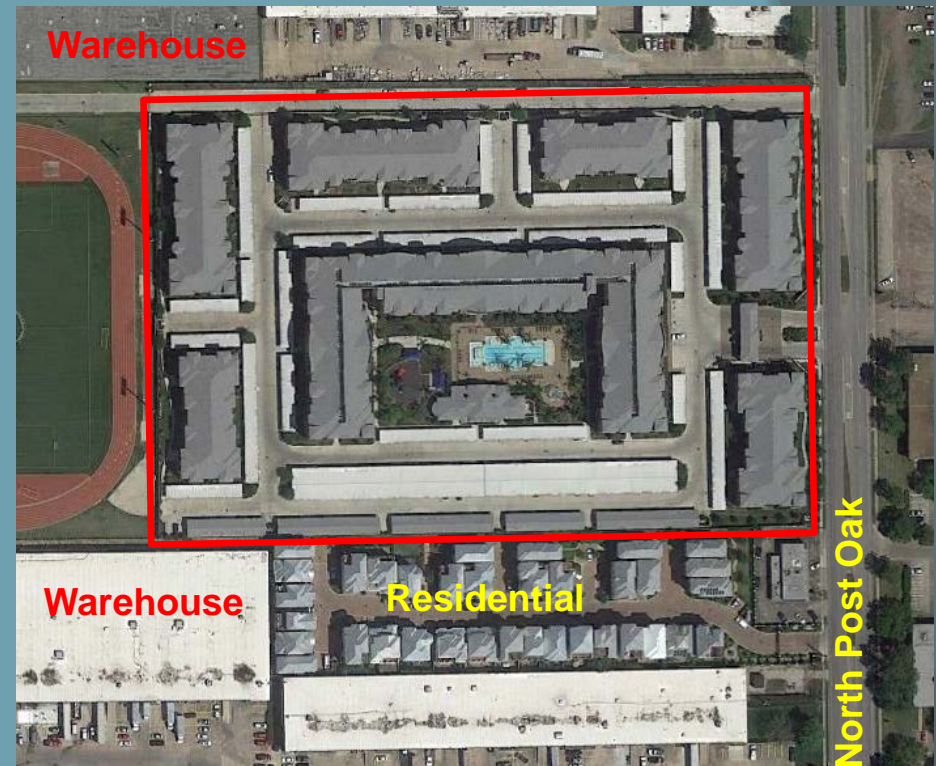
1255 North Post Oak History

- Developed in early 1980's as an oilfield services facility.
- Operated by multiple oilfield service companies through the mid-2000's
- Most recent tenant was Kvaerner Oilfield Services.



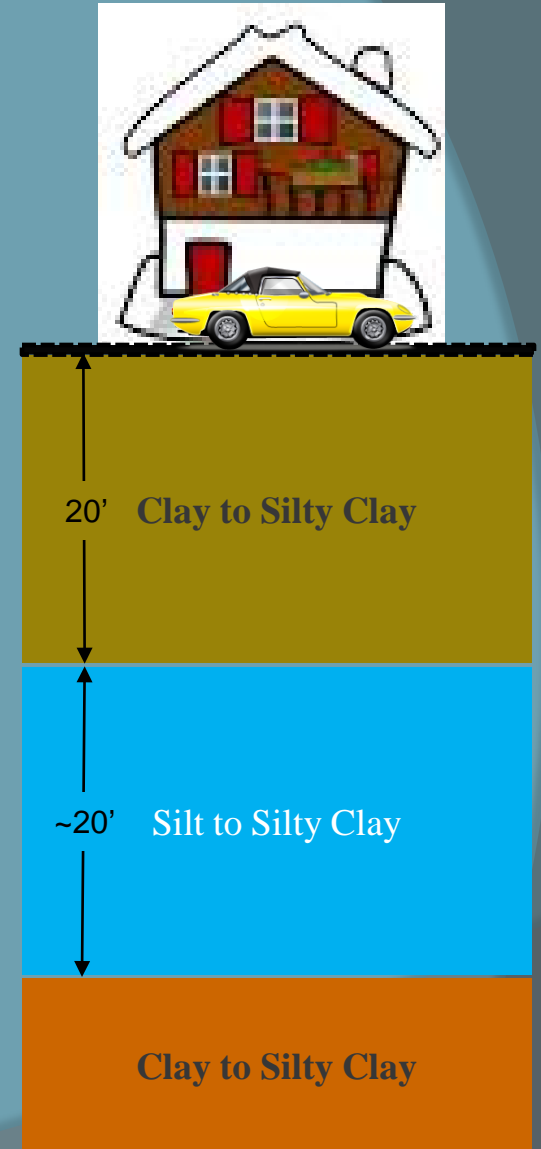
1255 North Post Oak - Current

- Property structures were demolished in 2005.
- Property was redeveloped with multi-family housing in 2009.



Environmental Setting

- The first groundwater bearing unit (GWBU) is between approximately 20 to 40 feet below ground surface.
- The upper GWBU is underlain by a thick clay which limits vertical migration to deeper units.
- Groundwater flow is to the south (1255) to southeast (1300)
- Buffalo Bayou is located approximately 1.75-miles south of proposed MSD boundary(ies).



Environmental Due Diligence

- As part of environmental due diligence, Phase I ESAs were conducted on the properties.
- Phase II ESAs were conducted to determine if a release had occurred from historic operations. Soil and groundwater samples were collected.
- The properties were enrolled in the TCEQ Voluntary Cleanup Program (VCP).
- McKinley Paper was assigned VCP No. 2526 and Kvaerner Oilfield Services was assigned VCP No. 1982.



Sample Locations – McKinley Paper



McKinley Paper Investigation Results

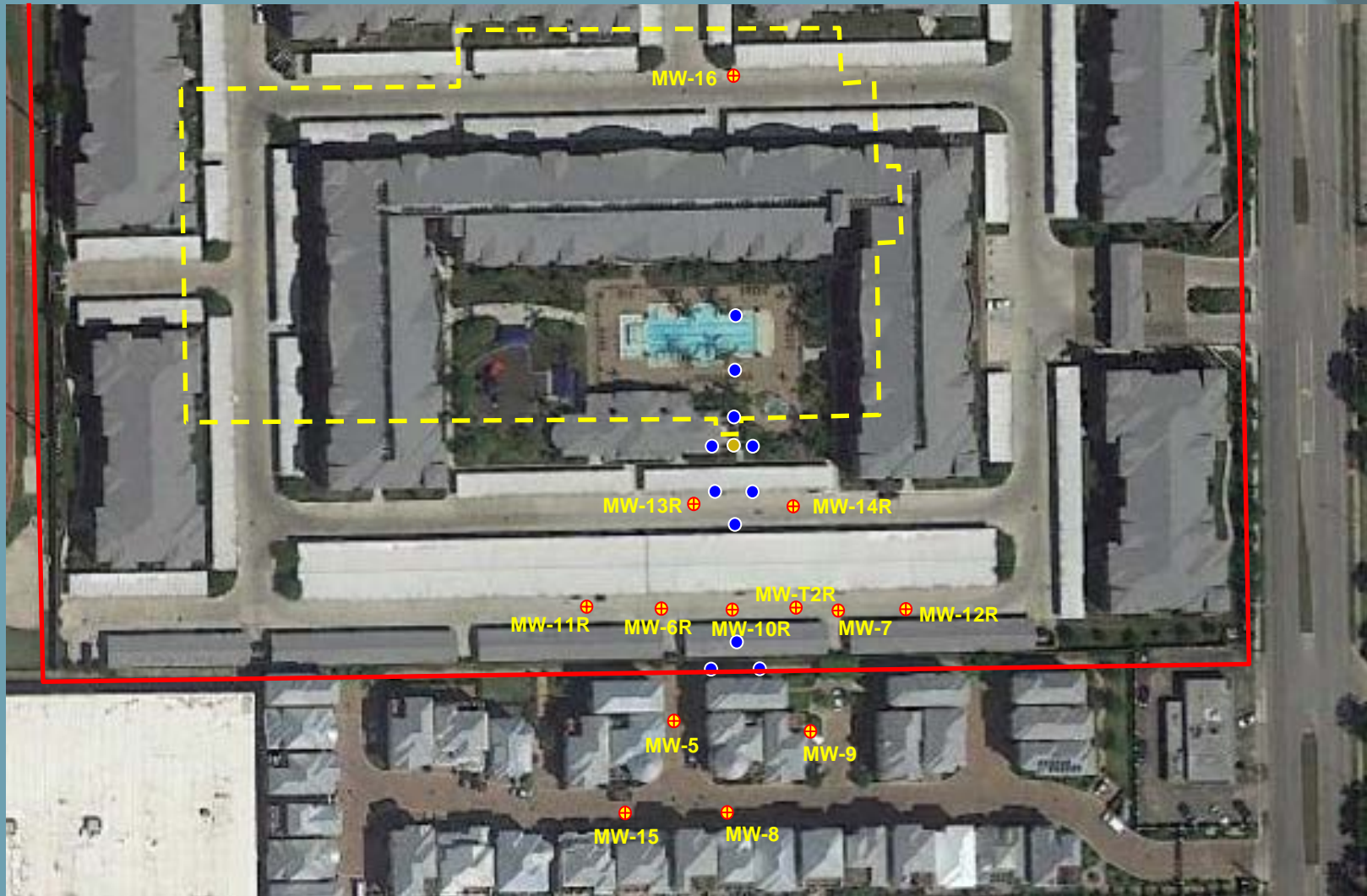
- Shallow soils near the southeast corner of the property reported VOCs (TCE, 1,1-DCE and vinyl chloride) at concentrations less than regulatory levels.
- TCE, 1,1-DCE and vinyl chloride were also reported in groundwater samples collected from monitoring wells above the TRRP Tier 1 Residential Protective Concentration Limits (PCLs).
- The groundwater plume extends off-site to the property to the south-east.
- The VOC groundwater plume has been delineated in all directions.



VOCs in Groundwater – McKinley Paper



Sample Locations – Kvaerner

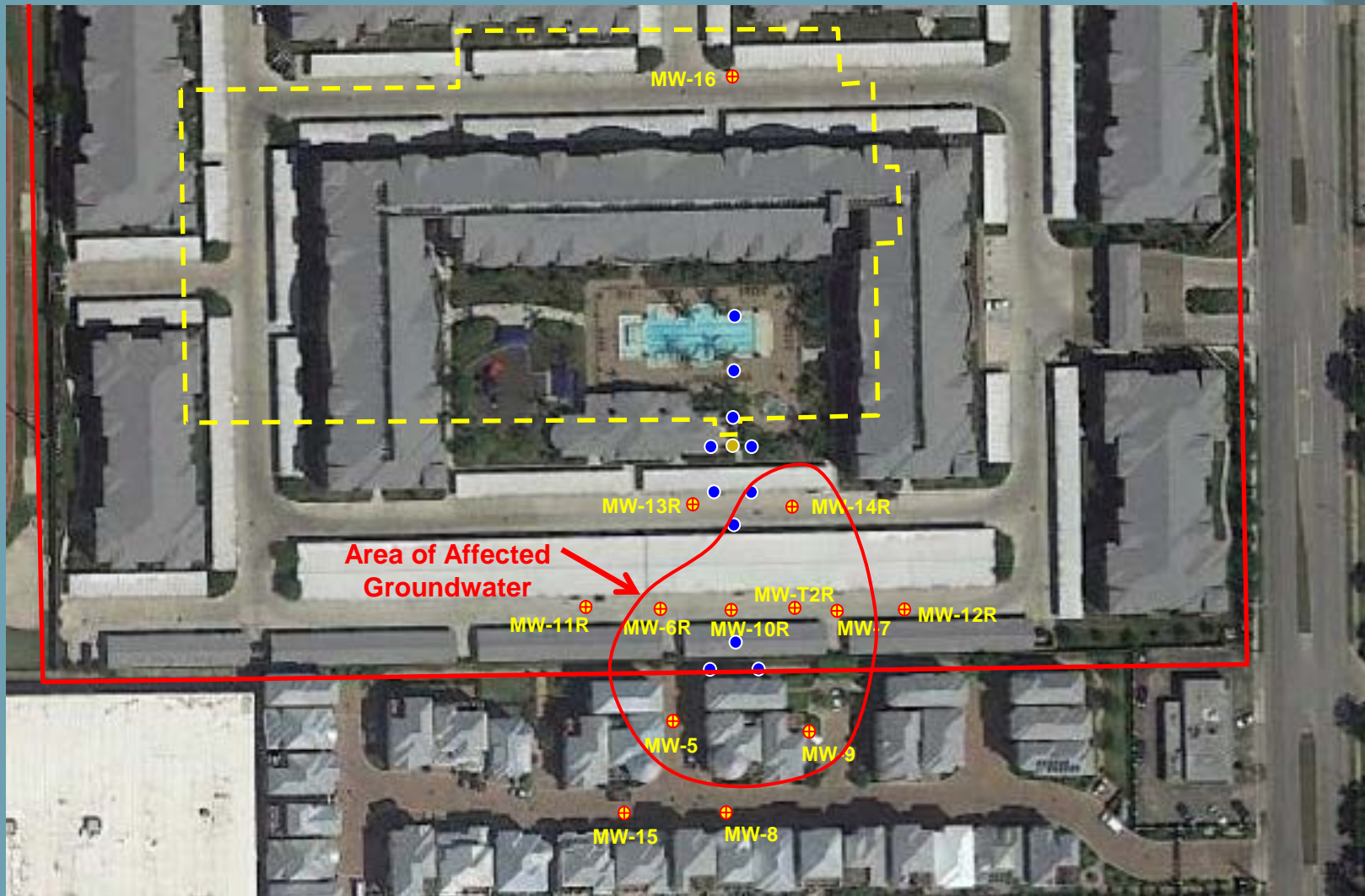


Kvaerner Investigation Results

- One soil sample near a sump of the former Kvaerner building reported 1,1-DCE at a concentration above the regulatory level.
- 1,1-DCE and vinyl chloride were also reported in groundwater samples collected from monitoring wells above the TRRP Tier 1 Residential Protective Concentration Limits (PCLs).
- The VOC groundwater plume extends off-site to the property to the south.
- The VOC groundwater plume has been delineated in all directions.



VOCs in Groundwater – Kvaerner



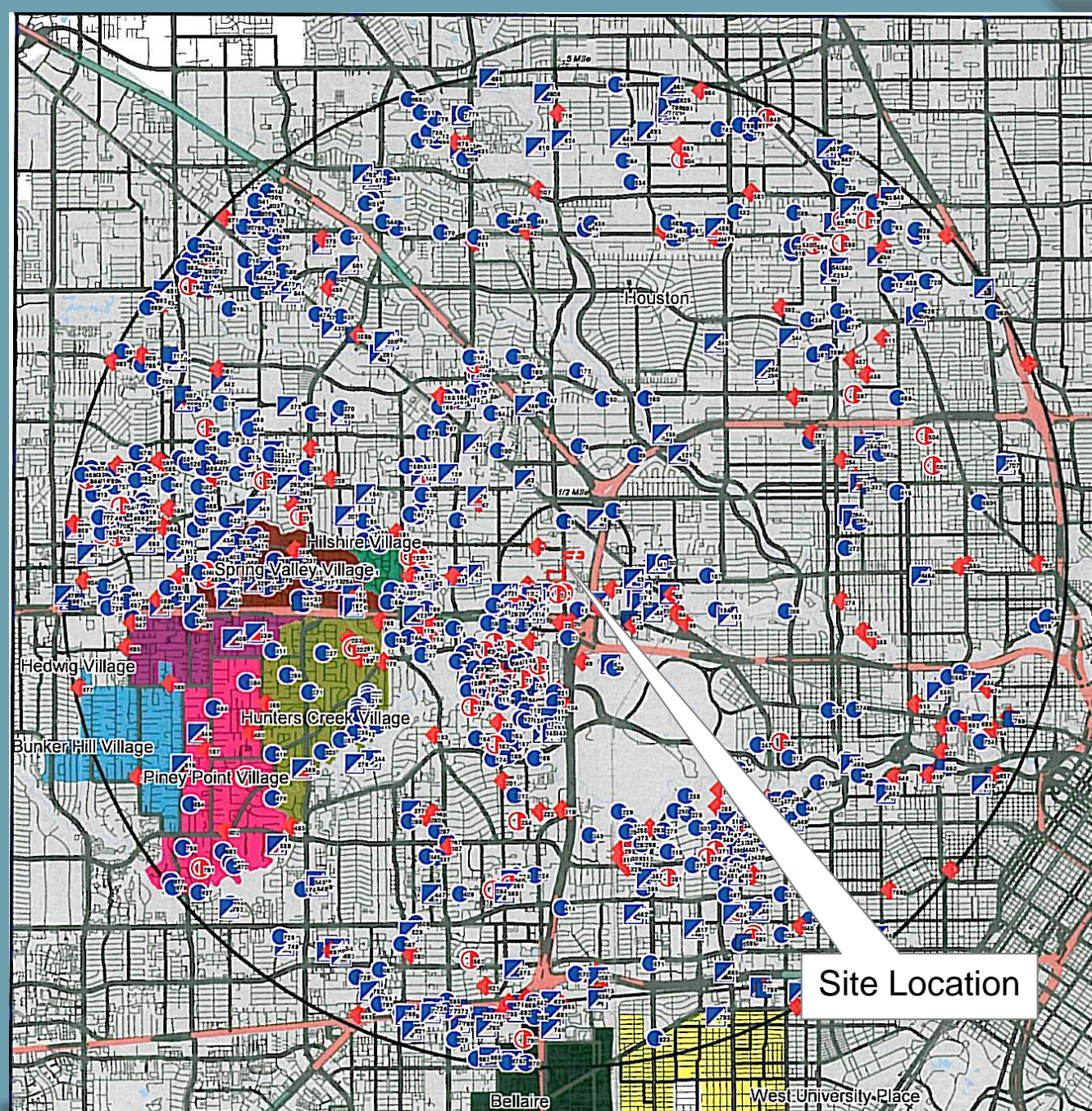
Are You Exposed?

No - Why?



- First and foremost - Groundwater is not accessible and is not a source of potable or drinking water.
- There are no downgradient users of groundwater.
- Located in a primarily industrialized and commercial area of Houston. The most likely land use will remain the same.
- No potable wells are allowed to inside MSD Boundary.





The nearest domestic water well is located 600-feet to the south and completed at depth of 300-ft below ground surface.

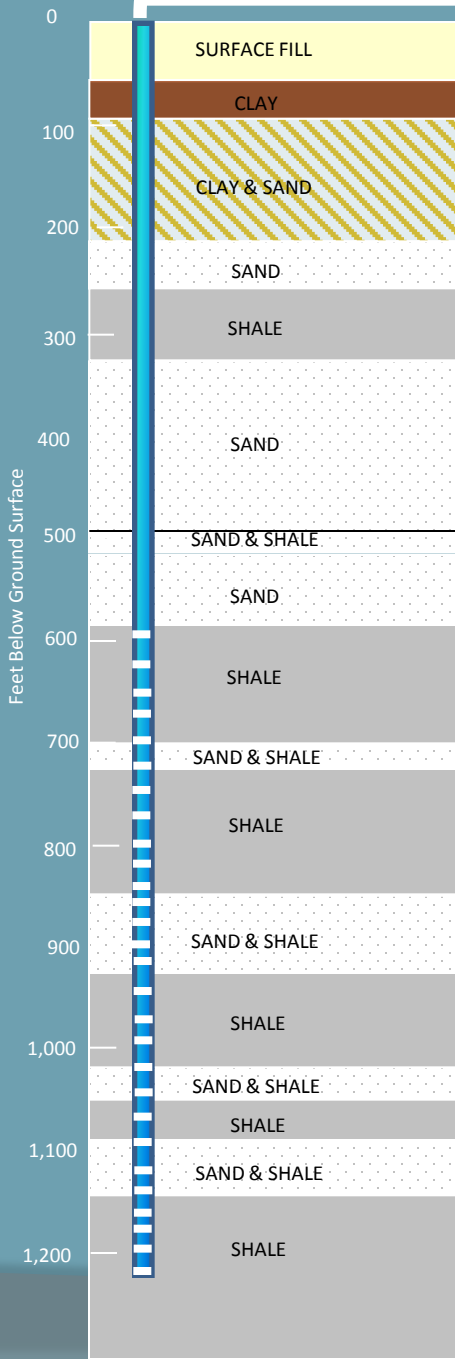
The nearest public water supply well is located greater than 2-miles southwest (cross gradient) and completed at depth of greater than 750-ft below ground surface.



More than 1 mile Separation



MSD



CHICOT
AQUIFER

EVANGELINE
AQUIFER

Summary

- Affected groundwater has been vertically and horizontally delineated and is stable.
- The closest active public water supply well is approximately 2-miles away from the subject property.
- The closest domestic well is located approximately 600-feet away from the subject property in a southerly direction.
- No current exposure to the chemicals present in groundwater. The MSD will prevent the installation of potable water wells on the MSD properties.

